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ABSTRACT

The objectives of this study were to develop a model to explain early occupational attainment and to test a particular group of male and female Southern Appalachian youths. A path analytic model was developed to include mother's and father's education, breadwinner's occupation, residence, amount of significant others' influence, occupational aspiration, educational attainment, and occupational attainment. Data were collected from a specially selected sample who had attended one of 17 Northeast Alabama high schools both in 1966 as sophomores and in 1968 as seniors and had responded to questionnaires at both times. A third contact in 1972 measured the attainment of those who were employed. Regression analysis was used to test 87 males and 67 females. Major results were that 38% of the variance for males and 26% for females was explained by the model; that the breadwinner's occupation contributed most heavily for males and occupational aspiration for females; that the model was more applicable to migrant than non-migrant males; and that home environment factors and personal value commitments were important. (Author/PS)

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THE PATH TO OCCUPATIONAL ATTAINMENT: A STULY OF NORTHEAST ALABAMA YOUTH FOUR YEARS AFTER HIGH SCHOOL

A Thesis by

Janice Sofge Cain

for the Degree

MASTER OF SCIENCE

December 1973

Department of Agricultural Economics and Rural Sociology,

Agricultural Experiment Station,

Auburn University, Auburn, Alabama

R. D. Rouse, Director

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Janice Sofge Cain

Certificate of Approval:

M. C. Adams, Jr., Assistant Professor, Sociology

J. E. Dunkelberger, Chairman
Associate Professor, Agricultural Economics and Rural Sociology

J. B. Vanlandingham
Assistant Professor, Sociology

C. L. Vanlandingham
Assistant Professor, Agricultural Economics and Rural Sociology

Paul F. Parks, Dean
Graduate School

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Janice Sofge Cain

A Thesis

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December 12, 1973

THE PATH TO OCCUPATIONAL ATTAINMENT: A STUDY OF NORTHEAST ALABAMA YOUTH FOUR YEARS AFTER HIGH SCHOOL

Janice Sofge Cain

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VITA

Janice S. Cain, daughter of Albert Clark and Helen (Foppiano) Sofge, was born in Memphis, Tennessee, on May 2, 1950. She was educated in the Memphis public schools and was graduated from East High School, May 1968. She entered Auburn University in September of the same year, majoring in psychology. She received the degree of Bachelor of Arts in December 1971. In March 1972, she married Lonnie P. Cain, son of the late Adlia Lyle Cain and Elizabeth (Adcock) Cain. September 1972, she entered the Graduate School of Auburn University in sociology and was awarded a research assistantship in the Department of Agricultural Economics and Rural Sociology.

THESIS ABSTRACT

THE PATH TO OCCUPATIONAL ATTAINMENT: A STUDY OF NORTHEAST ALABAMA YOUTH FOUR YEARS AFTER HIGH SCHOOL

Janice Sofge Cain

Master of Science, December 12, 1973
(B.A., Auburn University, 1971)

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Directed by John E. Dunkelberger

Occupational attainment is described as a longitudinal process through which everyone must pass to achieve his occupational status. Little empirical research has been done to determine which factors constitute and contribute most to the attainment process. Thus, the objectives of this study were to: (1) develop a model to explain the process of early occupational attainment, and (2) test this model for a particular group of Southern Appalachian youth, including both males and females.

A path analytic model was developed including mother's and father's education, breadwinner's occupation, residence, amount of significant others' influence, occupational aspiration, educational aspiration, educational attainment, and occupational attainment. Data used to test the model were collected from a specially selected subsample of youth who had attended one of 17 Northeast Alabama high schools both in 1966 as sophomores and 1968 as seniors and had

responded to questionnaires at both times. A third contact in 1972 measured their attainment. Only those persons who were employed in 1972 were included in this study. Regression analysis was used to test the model on 87 males and 67 females separately.

Results revealed that 38 per cent of the variance for males and 26 per cent of the variance for females was explained by the occupational attainment model. Breadwinner's occupation contributed most heavily for males and occupational aspiration contributed most heavily for females. The model was considerably more applicable to migrant than to non-migrant males. These findings indicated the importance of home environment factors and personal value commitments in the determination of occupational attainment.

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I. INTRODUCTION

The occupation one pursues is a prominent feature in that individual's life. It not only determines style of life but also the range of experiences one may encounter. Individual preferences and interests are dictated by the social stratum in which this occupation places him. Financial rewards from occupations act to set limits on the style of life one can attain.

A major portion of a person's life is spent at work. Total working hours vary from occupation to occupation. Some occupations require a fixed time commitment, others fluctuate considerably. The amount of time spent on the job is a direct determinant of the amount of leisure time available to an individual. This fact further influences one's life style.

The work setting of an occupation has considerable impact on the individual. Some occupations are specific to a particular geographical area, others require frequent travel. The amount of interaction with others affects the work day, often extending occupationally related activities into leisure time hours in the form of entertaining clients or professional conferences (Haller and Miller, 1963:5).

The occupation one holds affects others, both in primary as well as secondary relations. In primary relations, additional roles may be created for wives, directly resulting from the husband's

occupation. The role of Sunday school teacher may be added to a wife's many duties if her husband is a minister. Children are affected through the family life style. In secondary relations, others are affected by a man's occupation because of the various goods and services provided by his fulfillment of that occupation. Occupations are vital to all persons, both collectively as well as individually.

Everyone must make some type of occupational choice. In the words of Thomas Carlyle (1947:2232), "It is the first of all problems for a man to find out what kind of work he is to do in this universe." No one can escape this decision. Women must decide whether to pursue an occupation or become a homemaker. Even the handicapped must decide on a means of livelihood. Some type of occupational choice is required of everyone even if the decision is to not work.

Each year thousands of youth make this decision and enter the work force. Some begin working early in life on a part-time and seasonal basis, while others wait until the late teens or early twenties. According to the 1970 census, 54.2 per cent of Alabama males and 34.6 per cent of Alabama females between the ages of 18 and 19 were employed on a part-time or full-time basis. For those from 20 to 24 years of age, 80.9 per cent of the males and 50.3 per cent of the females were so employed (U.S. Bureau of the Census, 1970). This represents a large number of decisions, many rationally made by the young worker and many others decided by fate.

A multitude of factors contribute to the occupation one attains. For example:

> The job one acquires is conditioned not only by the preferences and desires of the person for a particular occupational status (the aspect strongly implied as crucial by the term "choice") but also by many factors over which the individual has little or no control. (Kuvlesky and Bealer, 1966:266)

Because of the vital position of occupation in each person's life, it is important to determine what factors constitute the longitudinal process of occupational attainment and to what extent each contributes to this sequence. Information of this type would be useful to parents, teachers, and guidance counselors in preparing youth for future occupations.

Statement of the Problem

One may view the attainment of an occupation as a sequential process beginning with birth and ending with retirement (Super, 1957:185). Innumerable, variable conditions and situations are included in this process, some ascribed and others achieved. Each event influences subsequent events and each is directly or indirectly contributed to by all previous ones. Thus, the process of occupational attainment is a cumulative one. Blau and Duncan (1967), Sewell, Haller, et al. (1969), and Spaeth (1970) have investigated this process for males and have attempted to develop empirical path models. These models of occupational attainment have neither been applied to females nor specifically to a Southern Appalachian (Alabama) sample.

Full investigation of the occupational development process requires that females as well as males be studied. Moreover, if the attainment models are to have theoretical relevance, then these

models must be applicable to youth from all areas of the United States. Investigation of the path to occupational attainment can provide better understanding of the process through which individuals pass on their way to adult occupations.

Objectives

There were two specific objectives in this study. The two objectives were:

To develop a path model to explain the process of early occupational attainment.

To test this model for a particular group of Southern Appalachian youth, including both males and females.

II. THEORETICAL FRAMEWORK AND RELATED RESEARCH

Occupational attainment is a longitudinal process in which the adolescent draws from his past and from his personal qualities to achieve his life's work. One's choice is influenced by society, his associates, his self-concept and the environment in which he matures. In all cases occupational attainment is a path with each step influencing the eventual achievement of an occupation.

Two important concepts are vital to the study of occupational achievement--aspiration and attainment. Aspiration is the desire an individual has to acquire a particular goal (Haller and Miller, 1963:7). The consequence of aspiration to attainment is discussed:

> . . . it seems clear that knowledge of aspirations is important to sociologists since a man does have notions of desirability regarding his future status and does believe that by his own selection and desire he can materially affect the role he will acquire and discharge. (Kuvlesky and Bealer, 1966:268)

Attainment, on the other hand, is the process by which an individual achieves the goal that he desires. Occupational aspiration is to identify a specific aspect of behavior as a goal and to pursue that goal. Occupational attainment is the total process by which achievement of that goal is realized or sought.

Theoretical Framework

Several theorists have discussed various aspects of occupational attainment. Sorokin (1959:183) views various institutions such as the family, church, and school as channels of social circulation and,

at the same time, are "sieves" that distribute people into different social positions. The family is the original basis for positioning the individual. In American society the school is equally important by providing a testing and selecting function (Sorokin, 1959:171). Its purpose is not only to discover mental ability but also to discover fitness both socially and morally. Through the designation of the most fit, others are limited in the social position they may achieve (Sorokin, 1959:188).

Importance of the family in shaping the adolescent's vocational choices is stressed by Hollingshead (1949:285). These choices tend to reflect the adolescent's range of experiences. They are limited by the parent's occupation and accompanying life style. Hollingshead also stresses that the adolescent comes to understand the interrelation between his family's prestige and his father's occupation.

Super (1957:185) points out the vital function of the family in providing financial assistance and vocational information. He emphasizes the importance of role models at home and in hearing about the world of work (Super, 1957:86). Attitudes of peers, the family, or those of the same social status are strong determinants of vocational behavior. Also important are the prevailing self-improvement drive and the emphasis on geographic mobility as a means for social mobility (Super, 1957:107). One develops a self-concept in relation to work at home, school, and in part-time and seasonal jobs (Super, 1957:82-90). Based on the impressions of self derived from these experiences one makes vocational choices.

Super (1957:106-109) cites several reasons for a person's achievements not fulfilling his aspirations. Overemphasis of the self-improvement tradition and the high occupational expectations invidious in parent's status are the most common reasons. But in addition, the adolescent may have acquired unrealistic expectations about the rewards of educational attainment. This may contribute to a lower achievement level than that desired by the young adult. Finally, changes in the total economy may result in fewer opportunities and lower levels of attainment. In order to achieve vocationally, one must synthesize his personal needs and resources with the economic and social demands and resources available to him (Super, 1957:286).

Two somewhat different folk theories of occupational choice are discussed by Ginzberg, et al. (1951:20-22). The accident theory assumes that one's occupation is attained by external factors and chance, ignoring the role of individual ability and choice. Ginzberg criticizes this orientation because he assumes that the individual has potential and must react to opportunity in order for it to be significant. Similarly, the impulse theory that one is guided by emotions or unconscious forces in occupational selection is criticized by Ginzberg because a given impulse may influence one to choose more than one occupation and everyone having the same occupation does not share the same impulses.

Ginzberg has formulated his own theory of occupational choice based primarily on interviews with upper class males. He describes occupational choice as a process occurring over three successive

stages. The first stage is that of fantasy which occurs from ages six to eleven or twelve. During this period the child does not look at himself objectively and does not understand the relation between means and ends. Parents may guide early choices, but when the child becomes dissatisfied and makes his own choice, he enters the second stage (Ginzberg, et al. 1951:60-65).

The tentative stage occurs from ages thirteen to seventeen or to the end of high school. During this period the adolescent differentiates between the present and the future and learns to respect the permanency of decision making. Because of this he maintains the tentative quality of his choices. The adolescent is gaining self-insight and is in the process of developing occupational aspirations to correspond to these insights. Following completion of high school the adolescent must either choose a career or postpone his career decision while obtaining additional education (Ginzberg, et al., 1951:76-89).

The third period, realistic choices, extends from high school graduation through young adulthood and is further divided into stages. The first is the exploration stage in which the individual is acquiring the experience and knowledge to choose an occupation. The crystallization stage occurs when critical assessment of these insights takes place. Once a general occupational choice is made, it is unwavering. The third stage, specification, occurs when the young adult narrows his choice from the broad occupation to an area of specialization (Ginzberg, et al., 1951:97-117).

Ginzberg stresses the importance of external influences for persons at various income levels.

> The differences in exposure and stimulation in the environments of the upper and lower income groups contributed to differences in decision-making, for occupational choice is greatly influenced by family, community, and school (Ginzberg, et al., 1951:152).

When Ginzberg, et al. (1951:150-155) applied this theory to lower class males, he found that those from families of all socio-economic statuses follow these stages. Only during the last stage do males from lower income families deviate from these findings. Their attitude may be passive, feeling they really have no choice. Their range of choices may be stunted in the sense that fewer occupations are available to them as a group, especially those which require extensive training.

Ginzberg again tested his theory, originally formulated on research dealing with upper class males, using upper class females. He found that women follow the same scheme through the tentative stage but during the period of realistic choice they adjust their occupational decisions to conform to their marriage plans. Females from upper income families choose a college major on the basis of interest, personal satisfaction, and personal development. They are not concerned with earning a living but anticipate after marriage activities dominated by volunteer work and community service (Ginzberg, 1951:176).

Although females from lower income families were not interviewed, Ginzberg, et al. (1951:176) speculates that this group would be more concerned with earning a living. They have no financial

support for extended college education. Those who are able to attend college choose majors that emphasize job training, such as education or secretarial administration. However, for females in all income groups, occupational considerations are subserviant to marriage considerations after the tentative stage.

Ginzberg's general theory may be stated as follows:

1. Occupational choice is a process which takes place over a minimum of 6 or 7 years, and more typically over 10 years or more.

2. Since each decision during adolescence is related to one's experiences up to that point, and in turn has an influence on the future, the process of decision-making is basically irreversible.

3. Since occupational choice involves the balancing of a series of subjective elements with the opportunities and limitations of reality, the crystallization of occupational choice inevitably has the quality of a compromise (Ginzberg, et al., 1951:198).

Still another theory is expressed by Lazarsfeld (1951:16) who suggests a genetic approach, borrowed from biological development. Just as physical development, controlled by genes, occurs over a long time span and is affected by environmental factors, occupational attainment is seen as a longitudinal process also affected by the environment. "The use of the genetic approach entails the assumption that the final occupational choice can be understood only in terms of the stages of development through which the individual has passed." (1951:16) Instead of studying why an occupation is chosen, it is more meaningful to study how that occupation was attained. This approach supports the use of process models to study occupational attainment.

The preceding theories concur that occupational attainment is a longitudinal process influenced by many individuals, events, and institutions. One cannot study or understand occupational attainment by investigation at one point in time or by considering a single contributing factor. Thorough understanding must come from analyzing the contributions from many sources followed through a temporal sequence.

Related Research

A great deal of research has been done on the disaggregated and aggregated factors in occupational attainment. Sewell and Orenstein (1965:560), in testing the relation between size of community of residence and occupational choice, found that when sex, intelligence, and socioeconomic status were controlled, the original pattern of lower status aspirations of males from smaller communities is lessened but not eliminated. However, this same relationship was not observed for females.

In comparing Iowa farm and non-farm boys, Burchinal (1961) found no difference in occupational or educational aspirations in communities near industrial centers. In areas of low industrialization (agriculturally oriented), non-farm as well as farm boys experienced lower aspirations. Burchinal attributes these lower aspirations to the greater influence of parents and siblings rather than to occupational exposure.

Middleton and Grigg (1959) studied Florida high school seniors to test Lipset's hypothesis that rural youth have lower educational and occupational aspirations than do urban youth. Lipset's rationale

was that the city provides more and better educational opportunities as well as more exposure to occupational alternatives. Their results indicated that for white males in each intelligence level, urban residents had higher aspirations. Females from urban areas had higher educational aspirations than females from rural areas, but there was no difference in occupational aspirations between rural and urban girls. For blacks of both sexes no differences in aspirations were found between rural and urban residents.

When eliminating those boys planning to farm, Haller (1958) found no difference in occupational aspiration between farm and non-farm residence. He did find that levels of occupational achievement were positively correlated with levels of educational and occupational aspiration. Thus, high levels of aspiration were prerequisites to high levels of attainment.

The role of aspirations in occupational achievement was investigated also by Bohlen and Yoesting (1968). Their findings, based on the aspirations of high school seniors, indicated that aspirations for certain occupations, such as farming, crafts, and professions, have more predictive power in terms of actual attainment than other types of occupations. They provided no rationale for this conclusion, although one might speculate that in these occupations the paths to attainment are more clearly designated. In general, however, aspirations were not seen as good predictors of later occupational attainment. Findings from a follow-up questionnaire showed that only thirty-five per cent of the males and fifteen per cent of the females had attained their aspired occupation.

Kuvlesky and Bealer (1967) also concluded that although aspiration was not a good predictor of occupational attainment, a positive relation between aspiration and attainment does exist. Of those persons in a particular occupation, more had aspired to that occupation than had not. Similar results were found by Portes, Haller, et al. (1968).

In his study of Georgia boys, Payne (1956) assumed that vocational choice is a learning process which takes place through reward and punishment, imitation, and reflective thinking. He con-concluded that occupational aspirations are dependent upon educational aspirations. One may postpone his occupational decision until he actually leaves school at any level or until taking a full-time job. In contrast, educational choice is much more pertinent to an immediate situation because decisions must be made earlier and are more difficult to change with increasing age.

Spaeth (1968) found that educational attainment is a crucial intervening factor in occupational attainment. On the other hand, the effect of parent's socioeconomic status on occupational attainment is only indirect. It appears to affect the amount and quality of education at an intermediate point in the occupational attainment process.

Featherman (1971) concluded that parental status has a direct positive influence on educational attainment which, in turn, has a direct impact on early occupational attainments. In a study of Illinois men ten years after high school, he determined that parent's social status had a direct effect on occupational attainment if

college graduation was not achieved. Conversely, Eckland (1965) found that, if college was completed, then parent's social status did not affect occupational attainment.

Duncan and Hodge (1963), studying Chicago males, used regression analysis to determine the effects of educational attainment and parental social status on later occupational attainment. They found that the effects of father's occupation is mediated through educational attainment and that educational attainment is a more important determinant of occupational attainment than is father's occupation.

A classic study in the area of occupational attainment is The American Occupational Structure by Blau and Duncan (1967). Their findings are based on a national sample of 20,000 men between the ages of twenty and sixty-four. A path model including father's educational attainment, status of first job, and status of 1962 occupation was devised to examine the occupational attainment process. Family social status was found to have a direct effect on occupational attainment but most of its effect was mediated through educational attainment. The most pronounced effect on occupational attainment resulted from the individual's educational attainment.

The Blau and Duncan model was expanded by Sewell, Haller, et al. (1969) to include mental ability, academic performance, significant others' influence, educational aspirations, and occupational aspirations. This path model assumes several propositions:

> (1) Certain social structural and psychological factors--initial stratification position and mental ability, specifically--affect both the sets of significant others' influences bearing on

> the youth, and the youth's own observations of his ability; (2) that the influence of significant others, and possibly his estimates of his ability, affect the youth's levels of educational and occupational aspiration; (3) that the levels of aspiration affect subsequent levels of educational attainment; (4) that education in turn affects levels of occupational attainment (Sewell, Haller, et al., 1969:83-84).

This model was tested using a sample of Wisconsin males. Data were collected first from high school seniors in 1957 and again seven years later from the same sample to determine their occupational attainment. The rationale for the model was supported by these data. Educational attainment explained the greatest amount of variance in the model. However, significant others' influence had considerable effect on determining educational and occupational aspirations, and thereby indirectly influencing later occupational attainment.

Although no path models have been tested on females, Psathas (1968) pleas for the application of such models. The social setting includes marriage plans and fulfillment, family social status, education and occupation of parents, and values held by the young women. He states that the social setting should be emphasized in a path model of occupational attainment for women.

Path Model

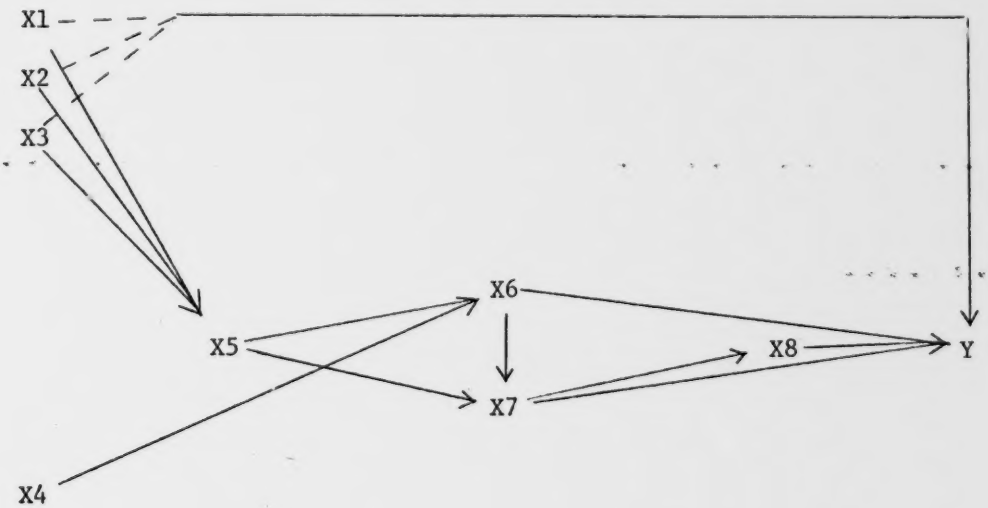
There exists a gap in sociological research concerning longitudinal models of occupational attainment. According to Spaeth (1970: 632-633),

> A relatively complete model of the attainment process among college graduates would start with parental socioeconomic status and the person's own intellectual ability and end with the prestige of the job he was currently holding. It would include as

> intervening variables several measures of career intentions . . . and measures of academic performance (grades and advanced training . . .

Only a few research efforts have begun to close this gap. Blau and Duncan (1967), Spaeth (1970), and Sewell, Haller et al. (1969) are the pioneers in this field.[1] A second gap exists in that there are no meaningful models of occupational attainment for women.

The major hypothesis of the present study is that the following model represents the path to occupational attainment for young adults, both male and female. Based on the relationships shown to exist by research previously cited, the following model has been developed.



X1 Mother's Education
X2 Father's Education
X3 Breadwinner's Occupation
X4 Residence
X5 Amount of Significant Others' Influence
X6 Occupational Aspiration
X7 Educational Aspiration
X8 Educational Attainment
Y Occupational Attainment

Figure 1.--A path model to explain occupational attainment

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[1]Cooley and Lohnes (1968) in Project Talent have longitudinally studied occupational attainment. However, their independent variables were primarily based on vocational aptitude test scores which are not within the scope of this analysis.

This model is founded on the following set of propositions. (1) Several ascribed factors--mother's education, father's education, and breadwinner's occupation--determine the amount of significant others' influence and occupational attainment; (2) size of place of residence determines occupational aspirations; (3) the amount of influence of significant others determines educational and occupational aspirations; (4) occupational aspirations directly determine educational aspirations and occupational attainment; (5) educational aspirations determine educational attainment and occupational attainment; (6) educational attainment determines occupational attainment.

Discussion of Propositions

The social setting in which a child matures is determined to a great extent by the level of education of his mother and father, prestige of the breadwinner's occupation, and the size of the place of residence. These factors influence the nature of the experiences a child encounters by virtue of his family's social status and the limits of his environment for exposure to differential stimuli.

These factors directly influence the child through the type and quality of relations developed with significant others. The significant other concept refers to those people who tend to have influence on an individual's formation of his self image and goals. In the socialization of the child, significant others primarily include his parents, teachers, and playmates (Theodorson and Theodorson, 1970:381). The amount of significant other's influence,

as perceived by the child, directly affects the child's occupational and educational aspirations.

Although educational aspirations might conceiveably precede occupational aspirations, it is assumed that occupational aspirations are more likely to determine educational aspirations.[1] Once one chooses his aspired occupation, the aspired education is identified as that necessary to attain this occupation. In this same scheme educational attainment has a direct causal effect on occupational attainment particularly in the early years.

These are the major variables in the occupational attainment process as conceptualized for analysis. It is recognized that because of the nature of this process, many uncontrollable and unmeasurable variables may also affect the attainment of an occupation. Natural disasters, state of the economy, personal value systems, poor health, and emotional problems are only a few of the factors which can influence occupational attainment. However, it is hypothesized that this model will explain a significant portion of the variance in occupational attainment for males and females.

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[1]Ginzberg, et al. (1951) would express the former phenomenon in which educational aspiration precedes occupational aspiration as merely a postponement of occupational choice rather than a causal influence.

III. METHODOLOGY

In order to investigate the aspirations and later attainments of youth, a longitudinal study design was created using data collected at three distinct points in time. The 1966 data were collected as a part of a project entitled, "Development of Physical and Human Resources in Selected Areas of the Extreme Southern Appalachian Region." Data collection in 1968 was conducted as a segment of the Southern Regional Project in Rural Sociology (S-61) entitled, "Human Resource Development and Mobility in the Rural South." The 1972 data were obtained in conjunction with Southern Regional Project (S-81) entitled, "Development of Human Resource Potentials of Rural Youth in the South and Their Patterns of Mobility." All three projects were financed through U.S.D.A. grants or Hatch Act funds with the data collection conducted by the Department of Agricultural Economics and Rural Sociology, Alabama Agricultural Experiment Station, Auburn University.

Sample Design

All sophomores from a sample of nineteen Northeast Alabama high schools[1] were administered questionnaires in the spring of 1966. Seventeen of these schools were again entered in the spring of 1968, when questionnaires were administered to all seniors, the majority of

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[1]For an explanation of procedures used to select the nineteen high schools, see Appendix A

whom had been contacted two years earlier, Table 1.[1] In neither instance were the students forewarned that questionnaires were to be administered in the high school. Therefore, it is assumed that a random sample of the class enrollment was obtained on each contact. It is recognized that some bias exists, however, as a result of the fact that lower status, less academically oriented students who dropped out of school before their senior year were eliminated from the study by virtue of their not being in attendance in 1968. This sample was homogeneous on the point that all youth were within two months of completing high school.

The 1972 sample was chosen from the 715 students who completed the 1966 and 1968 questionnaires. Differential sampling rates were used for males and females because of an anticipated greater difficulty in locating and interviewing males. A total sample of 200 whites was desired. Blacks were considered separately from whites because of their small number in this sample. All blacks of either sex were included because of their small proportion of the population in this area in Northeast Alabama.

Through the use of a table of random numbers, 120 white males were chosen along with 43 additional cases to assure recontacting at least the desired number of young adults. The same procedure was used to select the white female sample with 80 primary contacts and 40 additional ones. Thus, the total white sample was 283 cases to

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[1]Between 1966 and 1968 two small black schools had been consolidated under pressure for desegregation.

which was added a total of 51 blacks for a total sample of 334 cases including 184 males and 150 females.

TABLE 1

NUMBER OF STUDENTS INTERVIEWED AS 10TH GRADERS IN 1966 COMPARED TO THE NUMBER OF SAME STUDENTS REINTERVIEWED IN 1968 AND 1972 IN A SAMPLE OF 17 HIGH SCHOOLS IN 4 NORTHEAST ALABAMA COUNTIES

Name of school	County	1966	1968	1972
Boaz	Marshall	110	49	12
G. W. Carver	Jackson	25	4	3
Collinsville	DeKalb	60	32	9
Crossville	DeKalb	70	39	17
D.A.R.	Marshall	60	40	17
Fort Payne	DeKalb	130	90	37
Gaylesville	Cherokee	49	19	8
Hatcher	Cherokee	28	16	14
Marshall County	Marshall	155	109	40
Plainview	DeKalb	67	32	12
Sand Rock	Cherokee	33	18	10
Scottsboro	Jackson	144	111	45
Section	Jackson	69	38	12
Spring Garden	Cherokee	29	16	10
Stevenson	Jackson	79	63	30
Valley Head	DeKalb	34	22	8
Woodville	Jackson	40	17	8
Total		1182	715	292

Note:

The loss of matched students responding in both 1966 and 1968 is the result of absence on the day the questionnaires were administered, drop-outs, or transfers to other schools.

An attempt was made to interview each of these 334 young adults by face-to-face, personal contact. Those not interviewed because of distance were contacted by telephone and mailed questionnaires. Forty-

two cases either could not be located or refused to respond to attempts to contact them, leaving a basic sample of 292 young adults.

Design of Analysis

The sample of 292 young adults was deemed too heterogenous for the purpose of anayzing occupational attainment. For this reason certain restrictions were placed on the sample which further reduced its size. Housewives, students, and those in the military were excluded from the sample because occupational attainment for these persons had not been achieved. Blacks too were omitted from the sample because of their limited numbers and potentially unique occupational experiences. Eleven other cases were omitted due to insufficient occupational information. This resulted in a final subsample consisting of 87 white males and 67 white females, Table 2.

TABLE 2

NUMBER OF RESPONDENTS IN 1972 BY SEX AND STATUS IN REGARD TO SAMPLE

Status in regard to sample	Males	Females
Total 1972 sample recontacted	153	139
Excluded from subsample	68	72
Black	16	23
Housewife	0	24
In military	11	0
Student	29	18
Unemployed	2	4
Insufficient response	8	3
Total in subsample	87	67

Analysis of Data

To test the path model for occupational attainment, several statistical techniques were used. Regression analysis, a parametric technique, was employed in spite of the quasi-interval nature of the data.[1] Noted sociologists, Blau and Duncan (1967) and Sewell, Haller, et al. (1969), have employed this technique successfully with quasi-interval data in their analyses. Simple correlation was used to test the relationship between variables and analysis of variance was used to test significance of regression and correlation coefficients. On all tests of significance, the .05 level of probability was set as sufficient for acceptance of the association between variables.

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[1] Chapter IV discusses quantification of the variables used.

IV. VARIABLES

Questionnaires were constructed in 1966 and 1968 which consisted of a number of similar questions. This question consistency over time made it possible to measure change in attitudes and aspirations as they occurred between the two points in time. The 1972 recontact questionnaire also included a number of questions similar to those used in the preceding years as well as supplemental ones relating to goal attainment. Questionnaires from all three contacts were coded as a single data set or unit for this study to insure uniformity of response interpretation over time.

The key variables in the occupational attainment model were measured using questionnaire responses obtained at varying points in time. The choice of questionnaire items employed to measure each variable was based on the temporal placement of the variable in the occupational attainment sequence. The following discussion involves the operational definitions for the eight variables included in the model as they were specified in one of the three questionnaires.[1] Procedures for quantification of each variable are also discussed.

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[1]For the exact wording of questions as they appeared in the Alabama questionnaires (if different from this listing), see Appendix C. The wording given in the text conveys the general nature of the question and is not an exact duplicate of the wording used in Alabama. Although the region is not involved in this study, a uniform regional code was used for data from all three time periods.

Mother's and Father's Education

Measurement of the amount of education attained by each parent was accomplished by asking the following question in 1966: "What was the highest school grade completed by your father (mother)?" Response categores were: Did not go to school, Grades 1-7, Eighth grade, Some high school but did not graduate, Graduate from high school, Went to vocational school after graduating from high school, Some college but did not graduate, and College graduate (4 years).

Parent's educational attainment ranged across all of the categories from "Grade 1 to 7" to college graduation, Table 3. The modal category for parents of both the male and female samples was "some high school." All parents had received some formal schooling but only a small percentage had attained college graduation.

TABLE 3

EDUCATIONAL ATTAINMENT OF PARENTS OF MALE AND FEMALE YOUTH

Education level	Males		Females	
	Mother	Father	Mother	Father
Did not go to school	0	0	0	0
Grades 1-7	17	29	12	18
Eighth grade	6	6	7	12
Some high school	41	32	45	28
High school graduate	28	23	24	19
Vocational school	0	0	0	0
Some college	3	3	9	9
College graduate	5	7	3	13

Independent indexes of mother's and father's educational attainment were created by assigning weights of 1 (did not go to school) through 8 (college graduate) to the range of alternative

categories. This provided a continuum ranging from low to high attainment. For males the mean index score was 4.16 (S.D. = 1.44) for mother's education and father's education had a mean index score of 3.98 (S.D. = 1.70). Parent's educational attainment for females was slightly higher than for males. The mother's mean education index score was 4.31 (S.D. = 1.42) and the father's mean education score was 4.52 (S.D. = 1.94).

Breadwinner's Occupation

The occupation of the family breadwinner was determined in 1966[1] by this question: "What is the major job held by the main breadwinner (money earner) of your home? (Write your answer in the following box. Give a specific job, not the company or place worked for.)"

Occupations were scored according to the Socio-Economic Index (SEI). SEI scores range from 1 to 99. As devised by Otis Dudley Duncan, SEI combines income and education to arrive at a status score for a wide variety of occupations. Duncan views occupation as the intervening variable linking education to income.[2] By using these

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[1]The 1966 occupation was used even if a different occupation was cited in 1968. It is assumed that the 1966 breadwinner's occupation had a greater impact on the youth than the 1968 breadwinner's occupation because of its importance in determining the home environment in which the youth matured.

[2]A validity of .83 for the SEI has been determined through use of a multiple regression equation combining education and income to predict NORC prestige ratings. Since such a large amount of the variance was accounted for, it was determined that income and education are valid predictors of prestige ratings of occupations. This allowed the SEI to be developed including more occupations than are included in the NORC (Reiss, 1961:124).

variables to arrive at an occupational status score, the social and economic elements of occupational stratification are simultaneously considered (Hall, 1969:274).

The mean SEI score of the breadwinner's occupation for males was 33.23 (S.D. = 23.41) and for females was 32.42 (S.D. = 23.40). However, for females the breadwinner's SEI scores ranged from 3 to 86 and for males from 0 (unemployed) to 92. More than half the breadwinners held jobs rated 25 or below on the SEI, Table 4.

TABLE 4

SEI SCORES OF BREADWINNER'S OCCUPATION FOR MALES AND FEMALES

SEI score	Males	Females
	----------Per Cent----------	
0-25	53	57
26-50	24	25
51-75	16	10
76-99	7	7

Residence

The size of the place in which a person lived was determined by the 1966 question: "Where do you live? (Circle one.)" The categories provided were: City (over 2,500), Town or village (under 2,500), In the country but not on a farm, and On a farm. An equal percentage of males lived in the city and on a farm and an equal percentage of females lived in the city and in the open country. These types of residence represented bimodal categories, Table 5.

TABLE 5

SIZE OF PLACE OF RESIDENCE BY SEX

Residence	Males	Females
	---------Per Cent----------	
City (over 2,500)	36	34
Town (under 2,500)	9	13
Open country	20	34
Farm	36	18

For purposes of path analysis it was necessary that size of place be viewed as a continuum ranging from smallest or most rural to largest or most urban. Living on a farm was considered the most rural place and living in a city the most urban. A range of scores from 1 (farm) to 4 (city) was assigned to the 4 types of places. This resulted in a mean residence score for males of 2.45 (S.D. = 1.30) and for females of 2.64 (S.D. = 1.14).

Amount of Significant Others' Influence

Significant other's influence was measured by responses to the following 1968 question: "How helpful have each of the following people been in helping you to decide what job you would most like to have?" Evaluations of the amount of help were requested for parents, friends, relatives other than parents, teachers, and high school counselor. Respondents rated each type of significant other according to whether it was of No help, Little help, Some help, or Very helpful.

Almost half of these youth rated parents "very helpful" in making their occupational choices, Table 6. A majority of both sexes also rated their friends "some help." Feelings toward the helpfulness of relatives, teachers, and high school counselors were mixed. The largest proportion of males (65 per cent) rated counselors no or little help; but for females almost half thought they had been helpful. The same difference was observed relative to the rating of teachers. More than half the males (55 per cent) rated their teachers of little or no help with their occupational plans. Females were somewhat less negative than males with only 45 per cent rating teachers this way. Relatives were more likely to be rated helpful by males than by females with 56 per cent contrasted to 45 per cent rating relatives as either some or very helpful.

TABLE 6

PERCEPTION OF HELPFULNESS OF SIGNIFICANT OTHERS BY SEX OF RESPONDENT

Significant other	Males				Females			
	No	Little	Some	Very	No	Little	Some	Very
	Per Cent							
Parents	3	18	32	46	4	21	25	49
Friends	11	24	49	15	12	21	54	13
Relatives	20	24	34	22	30	24	30	15
Teachers	24	31	31	13	18	27	25	28
High school counselor	36	29	23	13	33	18	33	15

Each helpfulness rating was assigned a weight of 1 for no help through 4 for very helpful. If no response was provided, a score of 0 was given. These scores were then totaled for all 5 categories of significant others. The minimum possible score for amount of significant others' influence was 0 and the maximum 20.

The index indicated a mean amount of significant others' influence for males of 12.90 (S.D. = 3.27) and for females of 13.03 (S.D. = 3.12). Taking each category of significant other independently, parents were determined to have the most (mean of 3.2) and high school counselors the least influence (mean of 2.1) on occupational plans of both males and females.

Occupational Aspiration

Aspirations of youth in 1968 for an adult occupation were measured by the question: "If you were completely free to choose any job, what would desire most as a lifetime job? (In answering this question give an exact job. For example, do not say 'work on the railroad' but tell us what railroad job you would like to have.)" Responses obtained in 1968 were chosen for use in the model rather than 1966 aspiration responses. According to Ginzberg, et al. (1951), occupational choices are more reliable the nearer they are to the end of the tentative stage which is marked by high school graduation.

Each occupational choice was scored using the socioeconomic index value (SEI) for that occupation. Occupational aspirations of high school seniors in 1968 ranged from a SEI score of 3 to 95 for males and 0 (no specific occupational aspiration) to 92 for females. SEI aspiration scores for females far exceeded those of males.

Forty-four per cent of the males aspired to occupations rated above 50 on the SEI, while 71 per cent of the females aspired to occupations above that level, Table 7.[1]

TABLE 7

OCCUPATIONAL ASPIRATION SCORES FOR MALES AND FEMALES

SEI score	Males	Females
	---------Per Cent----------	
0-25	31	10
26-50	25	18
51-75	28	67
76-99	16	4

The mean SEI for males was 47.20 (S.D. = 25.11) and for females was 55.81 (S.D. = 18.95). Considering that the mean SEI of breadwinners did not exceed 33, the occupational aspirations of these youth exceeded considerably the status determined by the occupational level experienced in their homes.

Educational Aspiration

The amount of education desired in 1968 was measured by the question: "If you could have as much schooling as you desired, which of the following would you do? (Circle only one number.)" Responses were as follows: Quit school right now; Complete high school; Complete

[1]Based on the conservative nature of the SEI scores reported by this sample of 10th graders, it was assumed that the occupations cited represent attainable aspirations.

a business, commercial, or some other technical program after finishing high school; Graduate from a junior college; Graduate from college or university; Complete studies after graduating from college or university.

Educational aspirations of these youth as high school seniors revealed almost half desired to graduate from college, Table 8.[1] This was true for 48 per cent of the females and 45 per cent of the males. Only 10 and 18 per cent of the males and females, respectively, wanted to end their education with high school graduation. The proportion who desired to continue their education through a business or vocational program exceeded the relatively small proportion desiring to attend junior college. This desire for completion of a business or vocational program was indicated by 36 per cent of the males and 24 per cent of the females.

TABLE 8

EDUCATIONAL ASPIRATIONS OF MALES AND FEMALES

Education level	Males	Females
	---------Per Cent----------	
Quit school	0	0
High school graduation	10	18
Business or vocational program	36	24
Junior college	9	10
College graduation	23	30
Post-college studies	22	18

[1]For purposes of this analysis, it is assumed that, through various means of financial aid, all levels of educational aspiration are realistic and attainable in our society today.

An educational aspiration index was formed by assigning scores of 1 (quit school) through 6 (post-college) to these categories in ascending order. This resulted in a mean educational aspiration index score of 4.10 (S.D. = 1.37) for males and 4.06 (S.D. = 1.41) for females. Considering that the parent's average education was less than high school graduation, the amount of education desired by these youth far exceeded the status determined by the education level experienced in their homes.

Educational Attainment

The amount of education attained by 1972 was determined from the question: "What is the highest degree or educational program you have completed? (Circle only one.)" Responses were coded as follows: Some high school, High school diploma, Military training program, Vocational-technical program, Business or clerical program, Practical nursing, Associate degree-junior college, Bachelor degree-4 year college or university.

The amount of education attained ranged from only some high school in 3 cases to attainment of a bachelor's degree from a 4 year college or university. All of the females had completed high school. High school graduation was by far the maximum degree of educational attainment completed for most of these young adults, Table 9. For 1 male, a military training program had been his highest educational achievement. Ten per cent of both the males and females had graduated

from a junior college. Seven per cent of the males and 18 per cent of the females had graduated from a college or university.[1]

TABLE 9

EDUCATIONAL ATTAINMENT OF MALES AND FEMALES IN 1972

Education level	Males	Females
	---------Per Cent----------	
Some high school	3	0
High school diploma	69	61
Military training program	1	0
Vocational-technical	8	4
Business or clerical	1	6
Practical nursing	0	0
Junior college	10	10
Bachelor degree	7	18

An educational attainment index ranging from 1 (some high school) to 8 (bachelor degree) was formed assigning the larger scores to the higher levels of education attained. This resulted in a mean educational attainment score of 3.09 (S.D. = 2.10) for males and 3.87 (S.D. = 2.53) for females.

Occupational Attainment

The occupation that each young adult had achieved, the dependent variable in the attainment model, was determined by responses to the question: "What job or occupation did you hold on May 1, 1972?" In some cases the person was in the process of entering a new occupation. When this occurred, the following question was asked and that response

[1]Interpretation of these percentages must be made only with full awareness that these are employed persons only and do not include many members of the high school class who are still pursuing educational goals.

used: "Have you a firm commitment for a new full-time job or occupation after May 1, 1972? If the response is 'yes' give the job."

Each job cited was scored according to the SEI score for that occupation. Occupational attainment scores for males ranged from 4 to 84 with a mean of 33.84 (S.D. = 22.55). For females, occupational attainment scores ranged from 2 to 72 with a mean of 45.36 (S.D. = 19.86).

Over half the males had attained an occupation with an SEI of 25 or below but only 25 per cent of the females were in this category, Table 10. Forty-eight per cent of the females held occupations with an SEI above 50 while only 25 per cent of the males had attained occupations scored above this level. However, no females had attained occupations with a SEI above 75 whereas 6 per cent of the males had done so. An explanation of these seemingly higher occupational attainments for females may be attributed to higher prestige ratings usually assigned by the SEI to the clerical jobs held by many.

TABLE 10

OCCUPATIONAL ATTAINMENT SCORES FOR MALES AND FEMALES

SEI score	Males	Females
	---------Per Cent----------	
0-25	52	25
26-50	23	27
51-75	19	48
76-99	6	0

V. THE OCCUPATIONAL ATTAINMENT MODEL

This chapter applies a model[1] describing occupational attainment to a sample of young males and females from a rural area. Findings show that the hypothesized model explained 38 per cent of the variance in occupational attainment for males and 26 per cent of the variance for females. Success of the model in explaining variances as large as these lead logically to a questioning of the relative contribution made by the variables in the occupational attainment model.

The Occupational Attainment Model Applied to Males

The hypothesized occupational attainment model accounted for 38.56 per cent of the variance in occupational attainment for males from Northeast Alabama. The variance was significant at the .0001 level, Table 11.

There are many strong relationships between individual variables in the occupational attainment model, Table 12. A significant correlation existed between occupational aspiration and educational aspiration (.50) and between breadwinner's occupation and occupational attainment (.52). There was a negative correlation between amount of significant others' influence and all other

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[1]This model is illustrated in Chapter II.

variables in the model. This was contrary to anticipation. However, the only significantly negative correlation was between amount of significant others' influence and occupational aspiration (-.23). Also unanticipated was the low correlation (.15) between residence and occupational aspiration. In contrast, the correlation between residence and occupational attainment (.36) was found significant.

TABLE 11

EXPLANATORY VALUE OF THE OCCUPATIONAL ATTAINMENT MODEL FOR MALES

Source	df	SS	MS	F
Regression	8	16868.88	2108.61	6.12*
Error	78	26872.86	344.52	
Total	86	43741.75		

*p = .0001

The relationship between educational aspiration and educational attainment (.36) was slightly stronger than the relationship between occupational aspiration and occupational attainment (.33). Educational aspiration and educational attainment had approximately the same strength of relationship (.38 and .37) with occupational attainment. Both factors had a stronger relationship with occupational attainment than did occupational aspiration.

Breadwinner's occupation contributed most to the occupational attainment model. Twenty-seven per cent of the variance accounted for in this model ($r^2 = (.52)^2 = .27$) was the result of the breadwinner's occupation. Education variables and residence contributed heavily to

the model. Educational aspiration accounted for 14 per cent; educational attainment, 14 per cent; and residence and father's education accounted for 13 per cent of the variance. Occupational aspiration (11 per cent) and mother's education (9 per cent) had influence in the determination of occupational attainment. Amount of significant others' influence accounted for almost none of the variance (2 per cent) in this path model.

TABLE 12

CORRELATION COEFFICIENTS BETWEEN VARIABLES IN THE OCCUPATIONAL ATTAINMENT PATH MODEL FOR MALES

Dependent variables	Independent Variables							
	X1	X2	X3	X4	X5	X6	X7	X8
X1	....	....	....	....	....	....	....	....
X2	.54*	....	....	....	....	....	....	....
X3	.44*	.49*	....	....	....	....	....	....
X4	.16	.39*	.34*	....	....	....	....	....
X5	-.13	-.16	-.14	-.12	....	....	....	....
X6	.32*	.34*	.39*	.15	-.23*	....	....	....
X7	.36*	.40*	.32*	.22*	-.14	.50*	....	....
X8	.20	.13	.28*	.14	-.05	.26*	.36*	....
Y	.30*	.36*	.52*	.36*	-.13	.33*	.38*	.37*
r^2	.09	.13	.27	.13	.02	.11	.14	.14

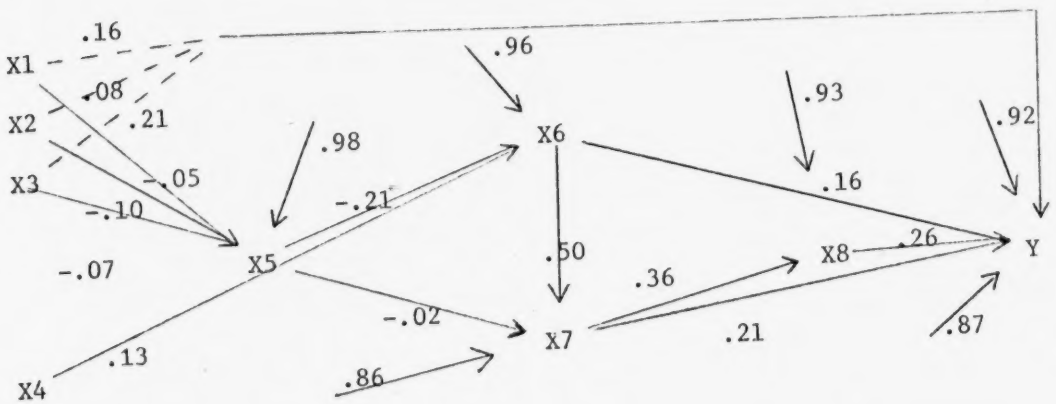
Notes:

X1-Mother's Education, X2-Father's Education, X3-Breadwinner's Occupation, X4-Residence, X5-Amount of Significant Others' Influence, X6-Occupational Aspiration, X7-Educational Aspiration, X8-Educational Attainment, Y-Occupational Attainment.

Asterisks refer to significant correlations at the .05 level.

Occupational attainment is determined by a causal, temporal chain of events, each step influencing later steps. The complete model of occupational attainment with its path coefficients is illustrated in Figure 2. Arrows with no source represent residual paths.

These refer to the extent to which the independent variables fail to explain variation in the dependent variable. The referent for path coefficients is ± 1.00.



X1-Mother's Education
X2-Father's Education
X3-Breadwinner's Occupation
X4-Residence
X5-Amount of Significant Others' Influence

X6-Occupational Aspiration
X7-Educational Aspiration
X8-Educational Attainment

Y-Occupational Attainment

Figure 2.--Path coefficients in the occupational attainment model for males.

Path coefficients were computed by multiple regression equations composed of only those variables immediately preceding each dependent variable at each step in the occupational attainment model. An example is X4 + X5 = X6. The residual was determined by the formula, $\sqrt{1 - R^2}$, for each R^2 value in each regression equation. Therefore, Y = X1 + X2 + X3 creates a residual of .92 but Y = X6 + X7 + X8 creates a residual of .87. The residual created by the regression equation of the complete model, Y = X1 + X2 + X3 + X4 + X5 + X6 + X7 + X8, is .78.

The path from occupational aspiration to the determination of educational aspiration produced the largest path coefficient (.50) in

the model. Thus, it was concluded that occupational aspiration had more predictive power on educational aspiration than any other independent variable on its immediate dependent variable.

The path from educational aspiration to educational attainment is the next most highly predictable (.36). Therefore, according to the model, educational attainment can be predicted by the amount of education desired.

The paths from educational aspiration to occupational attainment, from educational attainment to occupational attainment, and from breadwinner's occupation directly to occupational attainment all have similar degrees of predictability, (.21, .26, .21, respectively). Less predictability resulted for the path from residence to occupational aspiration (.13), from occupational aspiration to occupational attainment (.16), and from mother's education directly to occupational attainment (.16).

All paths directly to and directly from amount of significant others' influence produced negative predictability. The amount of significant others' influence was negatively related to both mother's and father's education and to breadwinner's occupation. The amount of significant others' influence reduced the occupational aspirations of these youth (-.21) and also reduced their educational aspirations although only slightly (-.02).

The Occupational Attainment Model for Males Controlled for Migration

The occupational attainment model when tested on a sample of 87 Northeast Alabama males produced some unanticipated results.

Breadwinner's occupation was by far the strongest determinant of occupational attainment for this sample. Amount of significant others' influence contributed only slightly and in a negative direction. As a result of these findings, speculation was raised as to the effect of migration on occupational attainment.[1] Males who had not moved from their home county (57) were differentiated from those who had migrated (30) and all statistical techniques were repeated for each group separately. Migration was operationally defined as having a 1972 mailing address outside the home county reported in 1968.

For migrants, means were higher than for non-migrants on all indexes except amount of significant others' influence, Table 13. However, only for educational aspiration and occupational attainment were these differences statistically significant. The mean SEI scores for breadwinner's occupation and youth's occupational aspiration were each over 9 points higher for migrants than for non-migrants.

The mean education to which non-migrants aspired was significantly less than the educational aspirations of migrants. Although high school graduation was the modal educational attainment for both groups, no non-migrants had attained college graduation contrasted with 20 per cent of the migrants who had done so. Occupational

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[1]The large contribution of breadwinner's occupation on occupational attainment for males led to the question of to the effect of migration on attainment. Those who migrate are assumed to have broken family ties, therefore, ascribed factors, such as breadwinner's occupation, were assumed to be less a determinant of occupational attainment for migrant males. For this reason, migration was controlled for further analysis.

attainment was approximately 12 points higher on the socio-economic index score (SEI) for migrants than for non-migrants.

TABLE 13

A COMPARISON OF MEAN OCCUPATIONAL ATTAINMENT MODEL CHARACTERISTICS FOR MIGRANT AND NON-MIGRANT MALES

Variable	Quantified scores	
	Migrants	Non-migrants
Mother's education-X1	4.23	4.12
Father's education-X2	4.37	3.77
Breadwinner's occupation-X3	39.50	29.93
Residence-X4	2.50	2.42
Significant others' influence-X5	12.63	13.04
Occupational aspiraton-X6	53.33	43.96
Educational aspiration-X7	4.60	3.84 *
Educational attainment-X8	3.63	2.81
Occupational attainment-Y	41.53	29.79 *

Note:

Asterisks refer to significant differences at the .05 level.

The occupational attainment path model explained 25.82 per cent of the variance when applied to non-migrants. The correlation between breadwinner's occupation and occupational attainment (.29) was less and the correlation between amount of significant others' influence and occupational attainment (-.22) showed an increase when migrants were eliminated from the subsample. Breadwinner's occupation had much less influence on the occupation attained by non-migrants. Also, the amount of influence exerted by significant others was a greater deterrent to occupational attainment for non-migrants than for migrants.

For those who had migrated from their home county since high school graduation, the occupational attainment model explained 68 per cent of the variance. Although the correlation between amount of significant others' influence and occupational attainment was positive for migrants, it was so low (.02) as to indicate no association between these variables. The relationship between breadwinner's occupation and occupational attainment (.77) was sharply higher for migrants than non-migrants. This variable alone accounted for 59 per cent of the variance explained by the model.

Control for migration demonstrated that the model better explained occupational attainment with a sample of migrants than non-migrants. Breadwinner's occupation, although the most influential variable, was much more important in occupational attainment among migrants than among non-migrants. There was no association between amount of significant others' influence and occupational attainment for migrants, but this relationship was more important for non-migrants in a negative way.

In spite of the different findings for these two subsamples, the occupational attainment model is still a useful tool. The explanation of 38 per cent of the variance in the occupational attainment model attests to the usefulness of this model when applied to a sample of Northeast Alabama rural males.

The Occupational Attainment Model Applied to Females

The hypothesized occupational attainment model accounted for 26.10 per cent of the variance in occupational attainment for females

from Northeast Alabama. This variance is significant at the .0182 level, Table 14.

TABLE 14

EXPLANATORY VALUE OF THE OCCUPATIONAL ATTAINMENT MODEL FOR FEMALES

Source	df	SS	MS	F
Regression	8	6790.82	848.85	2.56*
Error	58	19230.58	331.56	
Total	66	26021.40		

*p = .0182

There are many strong relationships between individual variables in the occupational attainment model, Table 15. A significant correlation existed between occupational aspiration and educational aspiration (.50) and between breadwinner's occupation and occupational attainment (.32). However, the strongest correlation with occupational attainment for females was occupational aspiration (.36). There was a negative correlation between amount of significant others' influence and all other variables except educational and occupational attainment; however, neither of these relationships were significant.

Contrary to anticipation, the correlation between residence and occupational aspiration (.22) was not significant but the correlations between parent's education and occupational attainment (.28 and .30) and between residence and occupational attainment (.31) were all significant.

TABLE 15

CORRELATION COEFFICIENTS BETWEEN VARIABLES IN THE OCCUPATIONAL ATTAINMENT PATH MODEL FOR FEMALES

Dependent variables	Independent variables							
	X1	X2	X3	X4	X5	X6	X7	X8
X1	....	....	....	....	....	....	....	....
X2	.48*	....	....	....	....	....	....	....
X3	.35*	.65*	....	....	....	....	....	....
X4	.24*	.43*	.37*	....	....	....	....	....
X5	-.15	-.15	-.10	-.13	....	....	....	....
X6	.33*	.34*	.31*	.22	-.12	....	....	....
X7	.40*	.41*	.41*	.31*	-.19	.50*	....	....
X8	.41*	.41*	.41*	.24*	.08	.45*	.57*	....
Y	.28*	.30*	.32*	.31*	.12	.36*	.27*	.29*
r^2	.08	.09	.10	.10	.01	.13	.07	.08

Notes:
X1-Mother's Education, X2-Father's Education, X3-Breadwinner's Occupation, X4-Residence, X5-Amount of Significant Others' Influence, X6-Occupational Aspiration, X7-Educational Aspiration, X8-Educational Attainment, Y-Occupational Attainment.
Asterisks refer to significant correlations at the .05 level.

Educational aspiration had a stronger association with educational attainment (.57) than did occupational aspiration with occupational attainment (.36). However, a stronger association existed between occupational aspiration and occupational attainment than existed between educational aspiration (.27) or educational attainment (.29) and occupational attainment. Ascribed social status factors, parent's education, and breadwinner's occupation, produced a stronger relationship with educational aspiration (.40, .41, and .41) than with occupational aspiration (.33, .34, and .31).

Occupational aspiration contributed most heavily to the occupational attainment model for females. Thirteen per cent of

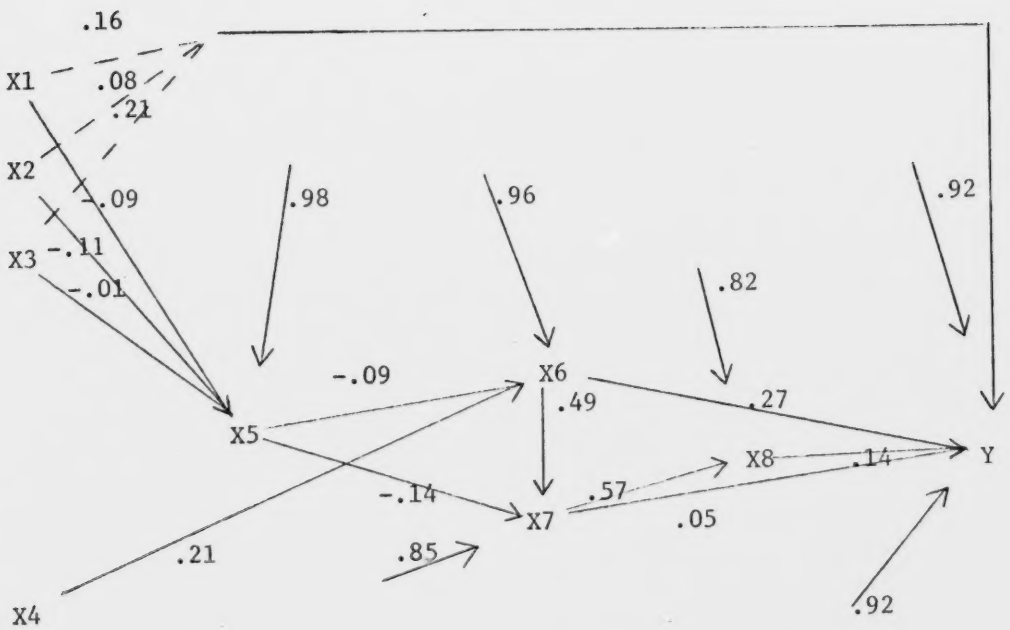
the variance accounted for in the model was a result of occupational aspiration. Breadwinner's occupation contributed next most heavily (10 per cent) and educational attainment contributed 8 per cent. Amount of significant others' influence contributed the least (1 per cent) of all variables.

Occupational attainment is determined by a causal, temporal chain of events, each step influencing later steps. The complete model of occupational attainment with its path coefficients is illustrated in Figure 3. The residual created by the regression equation for the complete model, $Y = X1 + X2 + X3 + X4 + X5 + X6 + X7 + X8$, is .86.

The path from educational aspiration to educational attainment produced the largest path coefficient (.57) in the model. Thus, it was concluded that educational aspiration has more predictive power on educational attainment than any other independent variable on its immediate dependent variable.

The path from occupational aspiration to educational aspiration is the next most highly predictable (.49). According to the model, educational aspirations can be predicted by the status of the occupation to which the youth aspired.

The paths from residence to occupational aspiration, occupational aspiration to occupational attainment, and breadwinner's occupation directly to occupational attainment all have similar degrees of predictability, (.21, .27, .21, respectively). Less predictability resulted for the paths from educational aspiration to occupational attainment (.05) and from educational attainment to occupational attainment (.14).



X1-Mother's Education
X2-Father's Education
X3-Breadwinner's Occupation
X4-Residence
X5-Amount of Significant Others' Influence
X6-Occupational Aspiration
X7-Educational Aspiration
X8-Educational Attainment
Y-Occupational Attainment

Figure 3.--Path coefficients in the occupational attainment model for females.

All paths directly to and directly from amount of significant others' influence produced negative predictability. The amount of significant others' influence was negatively related to both mother's and father's education and to breadwinner's occupation. The amount of significant others' influence reduced the occupational aspirations (-.09) and also reduced their educational aspirations (-.14).

The occupational attainment model is a useful tool when applied to females.[1] There are no previous studies in which a similar model has been applied to females. The explanation of twenty-six per cent of the variance in occupational attainment attests to the usefulness of this model when applied to a sample of Northeast Alabama rural females.

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[1]The question was raised as to the effect of marriage on occupational attainment for females. Fifty of the sixty-seven females in the sample were married, eighteen of whom had at least one child. In order to determine the relation between marriage and occupational attainment the model was tested for all married women. A two per cent increase in amount of variance explained (twenty-eight per cent) resulted for this group as distinguished from application of the model to all females. However, this explained variance was not significant ($p = .0621$) because of the reduced sample size.

VI. SUMMARY AND CONCLUSIONS

A path analytic model was developed to explain the process of occupational attainment. Variables included in the model were mother's and father's education, breadwinner's occupation, residence, amount of significant others' influence, occupational aspiration, educational aspiration, educational attainment, and, the dependent variable, occupational attainment.

This model was tested for a sample of youth from rural, Northeast Alabama. The following are the major findings.

First, 38 per cent of the variance in occupational attainment was explained when the model was applied to males with breadwinner's occupation contributing most heavily to the variance. A negative relation was found between amount of significant others' influence and occupational attainment and all other variables for males.

Second, the model was applied to males with a control for migration status defined as living outside his home county. The occupational attainment model was far superior for those who had migrated than for those who had not migrated. Breadwinner's occupation had less influence when applied to non-migrants and the relationship between amount of significant others' influence and occupational attainment became stronger in a negative direction.

Third, for females, the model explained 26 per cent of the variance. In this instance, occupational aspiration contributed

most heavily to the variance but breadwinner's occupation was the second largest contributor. Although the relationship between amount of significant others' influence and occupational attainment was positive for females, it was statistically insignificant.

Conclusions

The occupational attainment model, when applied to Northeast Alabama males and females, produced both anticipated and unanticipated results. The homogeneity of this rural, four county sample as opposed to the national, cross-sectional sample used by Blau and Duncan (1967) and the state-wide sample used by Sewell, Haller, et al. (1969) would lead one to expect an explanation of lesser amounts of variance. However, this model explained more variance than Blau and Duncan (1967) and Sewell, Haller, et al. (1969) attesting to the usefulness of this model in the explanation of occupational attainment for rural youth.

For males as well as females significant and positive correlations existed between the ascribed factors, mother's and father's education and breadwinner's occupation, and occupational attainment. For males, breadwinner's occupation contributed most heavily and for females it was the second strongest determinant of occupational attainment. However, there was a negative path between these factors and amount of significant others' influence for males and females. It appears likely that the importance of ascribed factors, especially breadwinner's occupation, is generated as a part of the total home environment in which the child matures rather than mediation through specific occupationa counseling by significant others. The home

environment contributes to the occupational attainment of youth in terms of a general life style and set of expectations rather than specific guidance about occupational choices. Breadwinner's occupation is also important for financial support of extended education. The fact that breadwinner's occupation increased in importance for migrants and decreased in importance for non-migrants lends support to this idea because of the higher educational attainments of migrant males over non-migrant males. Also, the occupational attainments of those who had migrated from their home counties were significantly higher than for non-migrants.

Between amount of significant others' influence and occupational attainment, there existed a small and statistically insignificant negative relationship for males and a small and statistically insignificant positive relationship for females. For migrant males this relationship became positive, and for non-migrant males it became stronger in the negative direction. However, both correlations remained insignificant. This is contrary to the findings of Sewell, Haller, et al. (1969) who found a high correlation between significant others' influence and occupational attainment and found positive paths between it and occupational and educational aspirations.[1]

The difference in findings between Sewell, Haller, et al. and the present study may be attributed to differences in operationalism of variables. Sewell, Haller, et al. (1969) meas d perception of encouragement for college by significant others. It is felt that the

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[1]Negative paths in this study existed between amount of significant others' influence and occupational and educational aspiration except in the case of educational aspiration for non-migrant and occupational aspiration for migrant males.

operationalism used in the present study is more relevant to occupational attainment because the perception of helpfulness by significant others was measured in terms of the personal occupational goal of the youth rather than an educational goal set by the researcher. A goal established by the researcher may be meaningless to the respondent.

Amount of significant others' influence in this study was not an adequate intervening variable between ascribed factors and either educational or occupational aspirations. Only the negative path between amount of significant others' influence and occupational aspiration for non-migrants was significant. This suggests that the occupational guidance given by significant others had a depressing effect on the occupational aspirations of non-migrant males. Moreover, in the shortrun at least, they attained significantly lower status occupations than did migrants. Of the total sample, amount of significant others' influence showed mixed and weak relations with aspirations and with occupational attainment.

Size of place of residence was found to be a weak predictor of occupational aspiration for all groups although a significant correlation existed between it and occupational attainment for both males and females. Stronger relationships might be found for a less homogeneous sample and with size of place of residence categories which are more discriminating. Although some respondents lived in cities during adolescence and some on a farm, none of these cities had a population over 10,000. The homogeneity of experiences to

which these youth were exposed might be an explanation of the weak predictive power of residence on occupational aspiration.

Occupational aspiration was the strongest determinant of occupational attainment for females but this relation was not as important for males, although a significant correlation did exist between the two variables. Females have two distinct adult alternatives open to them--to pursue an occupation or not to pursue an occupation but to become a homemaker. Males generally have no such choice. Since the sample in this study consisted only of those females who were employed in occupations, the importance of occupational aspiration is understood. Because there exists an alternative to holding an occupation and because the sample of females is homogeneous in that they all held occupations, occupational aspiration contributes heavily to occupational attainment. On this basis, females in this group are assumed to have a commitment to pursuing an occupation.

The strong path from occupational aspiration to educational aspiration supports Ginzberg's, et al. (1951) logic that occupational choices determine educational choices. One decides how much education is necessary to pursue the occupation of his choice. It is interesting to note that for males as well as females the path from occupational aspiration to occupational attainment has less predictive power than the path from educational aspiration to educational attainment. However, this appears to be logical because of timeliness and access to the attainment of their educational goals. For many, educational aspirations were achieved one month after answering the

1968 questionnaire as opposed to the possibility of extened on-the-job training, advancement through the ranks, and advanced education in the pursuit of the aspired occupation.

Significant correlations existed between educational attainment and occupational attainment although this was not the variable that contributed the most prediction to the model as was the case with previous studies. For this sample four years after high school, high school graduation was the highest level of educational attainment for a large majority of these youth. Very few had had ample time to complete college (or more) and to attain an occupation, so these young people were underrepresented in this sample. The educational homogeneity of the sample tends to reduce the importance of educational attainment in studying occupational attainment at this stage in the process.

The occupational attainment model was most applicable to males who had migrated from their home counties. The fact that similar amounts of variance were explained by the model for females and non-migrant males arouses speculation about any basic similarities between these two groups. It is possible that personal value measures are more important to females and non-migrant males than are objective attainment and aspiration measures. Therefore, personal value variables should be introduced into the model. Females may hold their present occupation because of feelings of confinement to traditional female occupations, limited occupational choices because of confinement of husband's job to a particular locale, unwillingness to leave family, convenient working hours for

a married woman and mother, or the temporary nature of the job. For non-migrant males, marriage status, family ties, insecure feelings about geographic migration, and free time commitments all counter migration and should be included as a personal value variable in future occupational attainment models.

Occupational attainment is a process through which every individual must pass. It is vital that this process become more fully understood, therefore, further research should be conducted in this field. Future studies should include mental ability, measures of personal values, academic performance, and migration. Future research including more representative samples and measurement of occupational attainment later in the careers of youth could possibly supply different findings from those of the present study.

This study is only a small beginning in the research effort to delineate and understand all the factors which determine the occupation one attains. Findings from studies such as this provide indications of how open our stratification system actually is and raises the question as to whether ascribed factors are more important than achieved factors in occupational attainment. A thorough understanding of the occupational attainment process is vital to all who are associated with maturing youth.

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APPENDICES

APPENDIX A

The following is a description of procedures used to select the nineteen high schools from which the data reported in this study were obtained.

A complete list of all high schools in Cherokee, DeKalb, Jackson, and Marshall counties was obtained. Among the 33 schools listed, 2 were part of city systems and were the largest and third largest in the area and 4 were segregated black schools. Three of the black schools had less than 50 students in the 10th and 12th grades combined. These 6 schools were selected from the study because of their uniqueness in size and structure.

The remaining 27 high schools were part of county systems and all but Marshall County High School in Guntersville were located in rural areas. All schools were ranked from smallest to largest on the basis of the combined enrollment of the 10th and 12th grades as of January 1, 1966. Every other school was selected beginning with the second largest. This resulted in a total of nineteen schools.

APPENDIX B

The following is a description of the area in which this study was conducted. Six features were chosen to illustrate the environment of this area--residence, age, race, education, composition of the labor force, and income.

The counties in which this study was originally conducted are Cherokee, DeKalb, Jackson, and Marshall. These are a part of the Southern Appalachian Region. Some understanding of the environment in which these young adults were reared is essential to interpretation of their occupational attainment process. To achieve this understanding, the U.S. Census of Population for 1960 and 1970 was used to summarize some of the demographic features of the four county area and to compare these features to state averages, Table 16.

All four counties were predominantly rural in 1970. Only one-fourth of the people resided in urban areas compared to 58 per cent of the state population. The proportion of urban residents (2.6 per cent) had increased since 1960. However, the proportion of rural non-farm residents had increased by 16 per cent which was offset by a decrease of 18 per cent in the proportion of farm residents. Cherokee County was the most rural and had no urban center while Marshall County, the most urban, had approximately 50 per cent of its population living in towns. No urban place in the four county area had a population of more than 12,000 persons. Eighteen per cent of the residents in the area lived on farms compared to the state average of only 6 per cent.

Although the four county area experienced a 4.2 per cent increase in population since 1960, this was less than the state increase of 5.4 per cent. Marshall County experienced the largest increase (12.9 per cent) compared with a decrease of 4.3 per cent for Cherokee County. Persons more than 18 years of age constituted a larger proportion of the population in the area than they did state-wide.

The proportion of the population in this age grouping had increased by 5 per cent since 1960.

TABLE 16

SELECTED DEMOGRAPHIC DATA: A COMPARISON OF THE FOUR COUNTY AVERAGES WITH STATE AVERAGES

Demographic characteristics	Four county area 1960	Four county area 1970	State 1970
Residence-Per cent			
Urban	22.4	25.0	58.5
Rural	77.6	75.0	41.5
Farm	36.8	18.5	6.4
Non-farm	40.8	56.5	35.1
Age-Per cent			
Under 18	38.3	33.8	35.8
18-64	52.9	55.6	54.7
65 and over	8.6	10.6	9.5
Race-Per cent			
White	95.9	95.4	73.6
Non-white	4.1	4.6	26.4
Education			
Over 25, median school years	8.3	9.5	10.8
14-17, per cent in school	81.9	86.5	89.3
Labor force-Per cent			
Females over 16 ('60-over 14)	24.8	35.4	38.1
Males 18-24	81.3	74.3	72.2
Income			
Median income	$2947	$6105	$7266
Per cent less than poverty	51.1	23.3	20.7
Per cent greater than $15,000	1.0	5.7	11.2

Sources: U.S. Bureau of the Census, 1960: Final Report PC(1)-2B; U.S. Bureau of the Census, 1960: Final Report PC(1)-2C; U.S. Bureau of the Census, 1970: Final Report PC(1)-C2.

Note:

In comparing income averages between 1960 and 1970, 1970 incomes should be multiplied by .763 to allow for inflation during this period (U.S. Bureau of the Census, 1971:332).

The education level of residents in the area improved greatly between 1960 and 1970. Median years of school completed by persons 25 years of age or older was 8.3 in 1960 compared to 9.5 in 1970. This was considerably lower than the 1970 state average of 10.8 years, however. Eighty-six per cent of the youth between the ages of 14 and 17 were attending school in 1970. This was a 5 per cent increase over 1960 but still below the state average of 89 per cent.

Employment for women over 16 years of age increased (10.6 per cent) since 1960, while employment for men between the ages of 18 and 64 decreased (7.0 per cent). Nevertheless more males were employed in this area in 1970 than was true for the state. Seventy-four per cent of the young men were employed compared to 72 per cent state-wide. Ten per cent more area workers were employed in manufacturing than was the case across the state. Thirty-eight per cent of the total labor force from these counties were employed in manufacturing.

Economic conditions have improved in the area since 1960. The median income for area families in 1970 was $6105, which compares rather poorly with the $7,266 for all families state-wide. However, when this is compared with the area's 1960 median income ($2947), a $1711 increase in median income (adjusted for inflation) was experienced. Twenty-eight per cent fewer people lived below the adjusted poverty level in 1970 than did in 1960. Twenty-three per cent of these people lived below the poverty level compared with 21 per cent state-wide. Six per cent of the four county area's residents earned in excess of $15,000 whereas, 11 per cent earned this income or more

in Alabama. Marshall County was the most affluent of the four counties, having the highest median income and least percentage of residents living below the poverty level.

The characteristics described here point to the problems and limited opportunities that exist in Cherokee, DeKalb, Jackson, and Marshall counties. This environment influences the kinds of experiences youth encounter and their aspirations. It also influences the type of goals they can achieve if they remain in the area. Sets of attitudes and values are produced during youth that affect their potentials for later occupational attainment.

APPENDIX C

The following is a listing of questions as they appeared in the Alabama questionnaires if the wording was different from the wording used in the regional summarization. Questions are listed according to the variable they represent.

Mother's Education and Father's Education

How much schooling have your parents completed? (Circle the correct number for each parent.)

a) Father's education:

0 1 2 3 4 5 6 7 8 9 10 11 12 | 1 2 3 4

Grades in School | Years of College

b) Mother's education:

0 1 2 3 4 5 6 7 8 9 10 11 12 | 1 2 3 4

Grades in School | Years of college

Breadwinner's Occupation

Who do you consider the main breadwinner (chief money earner) in your family? (Circle one number.)

1. Father
2. Mother
3. Other (Who? _____)

If your (father) was employed what specific work did he do?

_____